

**Ministry of Infrastructure of Ukraine**  
**State Aviation Administration of Ukraine**

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**TYPE CERTIFICATE DATA SHEET TL0070**

**Airplane LA-8C**

Date of Issue of Type Certificate Data Sheet

Issue 1

May 27, 2016

**Type Certificate Holder:**

“Aeronautique Design & Service Bureau SA”  
Rue Agasse 54, 1208 Geneva, Switzerland

Aircraft Models covered by the Type Certificate

**LA-8C**

This Data Sheet which is integral part of Type Certificate № TL0070 prescribes the conditions and limitations under which the product(s) for which the Type Certificate was granted meet(s) the airworthiness requirements and environmental protection requirements, stated in Certification basis mentioned in this Data Sheet.

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## I. General Provisions

1. Date of Application: May 17, 2016.
2. Date of Type Certificate Issuing: May 25, 2016.
3. Category of Airworthiness: Light airplane of normal category
4. Manufacturer: LLC "Research, Development and Production Association AeroVolga"  
446 370, Russia, Samara region, Krasnoyarsk district,  
Krasniy Yar village, POB 17
5. Model: LA-8C

## II. Certification Basis (CB)

1. Requirements of Airworthiness: Defined in Certification Basis of aircraft LA-8C  
JIA8.0000.000 BC, which was drawn up on the base of  
«Airworthiness standards for civil light aircrafts, Part  
23. (AP-23)» issued in 2000, and «Airworthiness  
Standards: normal, utility, acrobatic, and commuter  
category aircrafts» (FAR 23)», Amendment 55.
2. Special Airworthiness Criteria:

LA8.301(a)(A)	Stress load
LA8.301(b)(A)	Stress load
LA8.303(A)	Reserve factor
LA8.307(a)(A)	Proofing of strength
LA8.345(A)	Lift augmentation tolerance
LA8.345(B)	Lift augmentation tolerance
LA8.371(a)(2)(A)	Gyroscopic and aerodynamic loads
LA8.405(A)	Secondary control system
LA8.409(A)	Trimming devices
LA8.423(A)	Horizontal stabilizing and balancing surfaces. Manoeuvring load
LA8.441(A)	Vertical surfaces. Manoeuvring load.
LA8.443(A)	Gust load
LA8.521(a)	Load conditions on the water
LA8.535(g)	Float bottom pressure
LA8.572(A)	Metal structure of airframe
LA8.726	Ground load dynamic tests
LA8.735(a)	Brake unit
LA8.755(a)	Flying boat hull
LA8.755(b)	Flying boat hull
LA8.903(a)(1)(i)	Engines
LA8.903(a)(1)(ii)	Engines
LA8.903(a)(1)(iii)	Engines
LA8.903(a)(1)	Engines

LA8.903(a)(2)	Engines
LA8.975(a)(7)	Drainages of fuel tank and carburettor
LA8.1141(d)(1)	Engine unit controls
LA8.1541(A)	Designators and placard works
LA8.1543(A)	Markings on instruments
LA8.1553	Fuel gauging system
LA8.1557(c)(1)(i)	Various designators and inscriptions
LA8.1557(c)(2)	Various designators and inscriptions
LA8.1583(f)(A)	Operating limitations

3. Equivalent Airworthiness Criteria:

FAR23.45(b)	Flying quality parameters
FAR23.51(a)(3)	Take-off speed
FAR23.173(a)	Static longitudinal stability
FAR23.173(b)(1)	Static longitudinal stability
FAR23.173(c)	Static longitudinal stability
FAR23.233	Weather-cock stability and controllability
FAR23.301(b)	Loads
FAR23.423	Manoeuvring loads
FAR23.427(b)	Asymmetrical loads
FAR23.479(c)	Conditions of horizontal landing

### III. Technical Characteristics and Operating Limitations

1. **Description of Aircraft**

The amphibian aircraft LA-8C (flying boat) is a light aircraft, normal category, with two piston six-cylinder air cooled engines, three-blade tractor, and constant speed, feathering and thrust reversing propellers. The aircraft empennage is T-shaped. The tail fin is structurally designed as a single unit with the fuselage tail section. The airframe of aircraft is made of composite materials (glassfiber reinforced epoxy plastics), with metal pick-up fittings, flying control runs and chassis. The chassis is three-wheeled, with nose gear, fully retractable in-flight and on the water.

The aircraft is designed to carry 8 people (including flight crew) and cargo.

2. **Type Design Definition:** The set of design documentation in accordance with Specification JIA8.08.0000.000 TC

3. **Dimensions**

Aircraft:

Length (m):	10.750
Wing span (m):	14.300
Height of aircraft parked on the ground (m):	3.300

Chassis:

Main wheel track (m):	1.950
Wheelbase (m):	3.460

Wing:

Wing Area (sq. m):	20.3
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4. **Engine**

4.1 **Model:** M 337C-AV01 manufactured by LOM Praha s.p., Czech Republic.  
Piston, inline, inverted, six-cylinder and air-cooled engine with two-speed supercharger and distributed fuel injector (see Note 1).

4.2	Number:	2
4.3	Engine displacement, (L):	6
4.4.1	<u>Take-off rating is no more than 5 minutes.</u>	
	Revolutions (rpm):	Not more than 2800
	Boost (inches of mercury):	Not more than 37.5
	Permissible RPM overspeed (rpm):	3,000 (not more than 10 seconds)
4.4.2	<u>Maximum continuous power without limitation on duration</u>	
	Revolutions (rpm):	2,700
	Boost (inches of mercury):	35
4.4.3	<u>Reverse, running time is not more than 2 min.</u>	
	Reverse cut-in (rpm):	Not more than 1,200
	Reverse cut-in speed (km/hr):	93
	Maximum motor oil temperature (°C):	80
<b>5.</b>	<b>Propeller</b>	
5.1	Model:	MTV-12-D-C-F-R (M)/CFRL190-53 manufactured by MT Propeller GmbH, FR Germany. The constant speed, feathering, thrust reversing, zero thrust* propeller (see Note 1).
	<i>Note: *) In the case if zero thrust is provided.</i>	
5.2	Number of blades:	3
5.3	Diameter (m):	1.9
5.4	Speed governor (model):	P-981-35D
<b>6.</b>	<b>Fuels</b>	
6.1	Total volume of fuel tanks (L):	440
6.2	Total volume of used fuel, (L):	410
6.3	Total inactive volume of fuel (L):	30
6.4	Grade of fuel used	See "Flight Crew Operating Manual JIA8.08.0000.000 PJ13"

7.	<b>Motor oils</b>	
7.1	The quantity of oil in the oil system (L):	
	– minimum quantity of oil in right/left tank:	6
	– maximum quantity of oil in right/left tank:	11
7.2	Grade of motor oil used	See “Flight Crew Operating Manual JIA8.08.0000.000 PJIЭ”
8.	<b>Weight Limitations (kgf)</b>	
8.1	Maximum take-off weight:	2,720
8.2	Maximum landing weight:	2,720
8.3	With minimum quantity of fuel in the wing:	2,720
8.4	Maximum cargo weight:	
	– in forward luggage section:	30
	– in rear luggage section:	15
	– on one seat:	130
9.	<b>Center-of-Gravity Range, % MAC</b>	See Section 2.4.3, “Flight Crew Operating Manual JIA8.08.0000.000 PJIЭ”
10.	<b>Indicated air speed limitations, (knt/km/hr)</b>	
10.1	Maximum air speed that shall not be exceeded during operating ( $V_{NE}$ ):	150 / 270
	Maximum operating air speed at strength conditions ( $V_{NO}$ ):	135 / 250
	Design air speed of manoeuvring ( $V_A$ ):	125 / 232*
	<i>Note: *) For minimum flight weight 2,000 kgf. For larger weight see “Flight Crew Operating Manual JIA8.08.0000.000 PJIЭ”</i>	
10.4	Maximum air speed with deflected flaps:	
	– up to $\delta_f = 10^\circ$ ( $V_{FI}$ ):	125 / 232
	– more than $\delta_f = 10^\circ$ ( $V_F$ ):	100 / 185

10.5	Maximum air speed with extended landing gear ( $V_{LE}$ ):	115 / 213
10.6	Landing gear operating speed ( $V_{LO}$ ):	100 / 185
<b>11.</b>	<b>Maximum operating height (m)</b>	<b>3,000</b>
<b>12.</b>	<b>Limitations at operating on the water:</b>	
12.1	Minimum depth of the waterbody (m):	1.5
12.2	Height of wind-driven wave (m):	Not more than 0.5
12.3	Height of surged wave (m):	Not more than 0.3
12.4	Landing gear operating speed on the water (knt/km/hr):	2 / 3.7
12.5	Maximum sailing speed with extended landing gear (knot/km/hr):	4 / 7.4
12.6	Maximum speed of berthing (knt/km/hr):	2 / 3.7
<b>13.</b>	<b>Equipment:</b>	Approved equipment is specified in "The specification of amphibian aircraft LA-8C" JIA8.0000.000 TC"
<b>14.</b>	<b>Minimum cabin crew:</b>	1 pilot
<b>15.</b>	<b>Maximal number of people on board:</b>	8 (including crew members)
<b>16.</b>	<b>Other limitations:</b>	Given in corresponding sections of "Flight Crew Operating Manual JIA8.08.0000.000 PJ3"

#### IV. Operating and Maintenance Instructions

Flight Crew Operating Manual:

- “Flight Crew Operating Manual JIA8.08.0000.000 PJI” for aircraft LA-8C with all supplements and changes approved by State Aviation Administration of Ukraine.

Aircraft Maintenance and Airworthiness Maintenance Guides:

- “Aircraft Maintenance Guide JIA8.08.0000.000 P” for aircraft LA-8C;
- “JIA8.08.0000.000 P” Technical Maintenance Rules” for aircraft LA-8C with all supplements and changes approved by State Aviation Administration of Ukraine.

#### V. Manufacturer’s Serial Numbers for Aircrafts LA-8C covered by Type Certificate:

(reserved)

#### VI. Notes

- Note 1:** Propeller MTV-12-D-C-F-R (M)/CFRL190-53, manufactured by MT Propeller GmbH, FR Germany, and engine M 337C-AV01, manufactured by LOM Praha s.p., Czech Republic, have been approved in the aircraft assembly.

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